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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/603,179 06/26/00 JOSHI

A 991476

EXAMINER

022876
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IM52/1105

SOUBRA, I	
ART UNIT	PAPER NUMBER

1744
DATE MAILED:

11/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/603,179

Applicant(s)

JOSHI, ASHOK V.

Examiner

Imad Soubra

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1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 23, 44 and 46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "directly" is not found throughout the specification by the Examiner where the claims listed above are not supported by the specification. The limitation "directly" is considered to be new matter and requires cancellation of this limitation.

2. Claims 1, 23, 44 and 46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There are some contradictions between the claims and the specification. The specification indicates on page 6, lines 2-11 that the sterilization process occurs in series of steps. On the other hand, the applicant introduces a new limitation in the claims "directly" which contradicts the applicant teaching of how to use the claimed invention. Appropriate clarification is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 23, 44 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. When using the limitation "directly", how direct does the contact have to be in order for the claimed invention to sanitize the surface?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-18, 23-39 and 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Weinberg et al. Weinberg et al teaches the same device of sterilizing substance using an electrochemical unit that includes an anode and cathode in the device. Weinberg teaches that the scrubber function may also be an integral part of the electrochemical cell design, particularly where one of the electrodes of the cell, 10 is porous, such as for example, a gas diffusion electrode or air cathode design as constructed for use in fuel cells and metal/air batteries; here, the gas diffusion electrode serves both as the electrode and an effective wet scrubber when contaminated air is contacted with the non-wetted side of such electrodes; another integrally located wet

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scrubber when contaminated air is contacted with the non-wetted side of such electrodes; another integrally located wet scrubber configuration comprises inert microporous hollow fiber bundles or an inert packing situated between anode 12 and cathode 14 of electrochemical cell 10 located in aqueous electrolyte 16 in a compartmented cell as illustrated with a separator 18, or unpartitioned cell in the illustrated with a separator 18, or unpartitioned cell in the absence of such separator where the contaminated air passes the inert microporous hollow fiber bundles or bubbled through the inert packing in the aqueous electrolyte; these integral air purifier designs are especially useful where smaller, more compact air purification units are desired, as for example, in portable gas mask and completely enclosed environmental suit (column 9, line 53-column 10, line 5). Weinberg et al further teaches that the scrubber liquid-electrolyte comprises as a principal component at least one-electrochemically regeneratable degradant-previously defined, which can be, for example a redox couple; suitable electrochemically regeneratable redox degradants may include any of the known redox couple; suitable electrochemically regeneratable redox degradants may include any of the known redox based on chromium, cerium, vanadium, cobalt, manganese, iron, nickel, silver, etc. and which when in their "active" form i.e. higher valence or higher oxidation state are capable of being reoxidized to their active form after undergoing reduction by chemical reaction with a contaminant (column 10, line 26-column 10, line 42). Weinberg also teaches that to power the electrochemical cell, a suitable DC power supply or pulsed power supply may be used (column 14, lines 10-15). The reference teaches that in

addition to gas mask and environmental suits, the air purification systems of this invention, both integral and nonintegral, are readily adaptable to heating and cooling systems of residential and nonresidential buildings; for instance, air circulation ducts of a forced air heating system of a hospital or other large building can be equipped with such an air purifier, so that heater air returning rooms will be free of pollutants; individual room humidifiers for the house for adding moisture to the air can also be equipped with the air treatment systems of this invention (column 17, lines 13-24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- Determining the scope and contents of the prior art.
- Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.
- Considering objective evidence present in the application indicating obviousness or nonobviousness.



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5. Claims 19, 20-22 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberg et al in view of Stein et al. Weinberg et al fails to disclose the fragrance dispenser and fan in his patent. However, the patent of Stein et al intrinsically discloses both these elements in his invention. Stein et al teaches that in an air conditioner having a fan for circulating conditioned air and a panel positioned in the flow created by said fan, said panel defining a front side and a rear side, an adjustable fragrance dispenser mounted to said panel (see claim 13). Further, the motivation for combining the two references would be to dispense a pleasing fragrance in the circulating air to mask odors therein (column 1, line 40-44). Therefore, it would have been obvious of one having ordinary skill in the art at the time the invention was made to incorporate the fan and fragrance dispenser of Stein et al into the device of Weinberg et al in order to make the environmental more pleasing for the consumer (column 1, lines 29-66).

Response to Arguments

6. Applicant's amendment necessitated the new ground(s) of rejection for claims 1-46 presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not


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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Imad Soubra whose telephone number is (703) 305-3541. The examiner can normally be reached on 8:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305-5408 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1193.

Imad Soubra
October 21, 2001


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